Angular sensor AS40 – Measurement range from 90° to 3600°

Technical characteristics:

Maximum measurement range	90° to 3600°
Output signal	- 0…10V - 4…20mA Current loop - 4…20mA Current generator - 0…20mA Current generator
Resolution	Essentially infinite (depending on the operating system)
Material	Aluminium base and hood (RohS compliant) Stainless steel shaft
Axis diameter	10 mm
Detection element	Monoturn potentiometer, plastic film, or hybrid multiturn
Connection	Male connector M16 – 8 pin Male connector M12 – 4 pin PVC cable – 4 wires
Standard linearity	+/- 0,25% PE (other values on demand)
Protection class	IP65 (other on demand)
Weight	≈ 200 g
Shock resistance	≤ 300m/s² (11ms)
Vibration resistance	≤ 100m/s² (10 … 500Hz)
Operating temperature	-10° to +70°C
Storage temperature	-20° to +100°C

Order code:

AS40		–			–		OP	

Sensor series

AS40

Measure range

0090 = 90°
0180 = 180°
0340 = 340°
1800 = 1800°
3600 = 3600°
(Other ranges on demand)

Output

U010 = Output 0…10V
I420 = Output 4…20mA (2-wires current loop)
I420G = Output 4…20mA (current generator)
I020G = Output 0…20mA (current generator)
(Other values on demand)

Output sense

H = CW
A = CCW

Linearity

L50	= +/- 0.50% FS	(standard for ranges up to 340°)
L25	= +/- 0.25% FS	(standard for ranges superior than 340°) (optional for ranges up to 340°)
L15	= +/- 0.15% FS	(optional for ranges superior than 340°)

Connection

C = Male connector M16 – 8 pin
L4 = Male connector M12 – 4 pin
K = PVC cable – 4 wires + ex: **02** for cable 2 meters long

Options **OP**

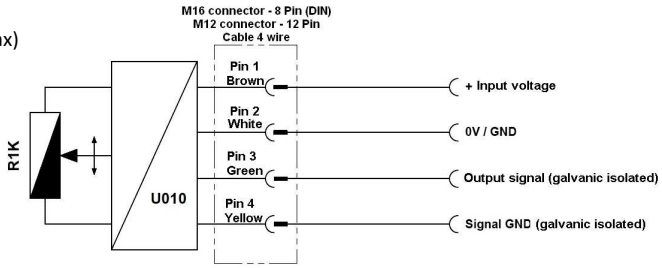
IP67 = Protection IP67

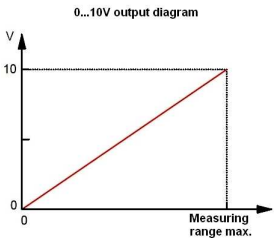
Reference example: AS40-3600-I420-H-L25-K02

Electrical characteristics :

Analog version 0 … 10V :

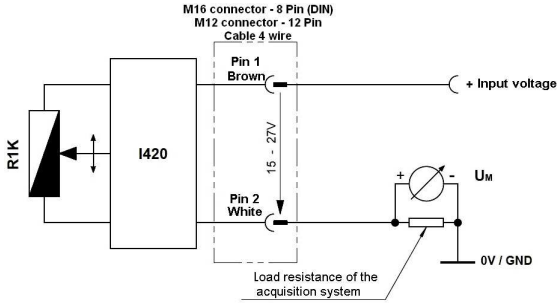
Input voltage	15 to +27 Vdc (52mA max)
Output voltage	0 to 10 Vdc
Output current	10mA max
Galvanic isolation	3KV
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

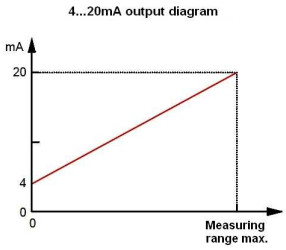




Analog version 4 … 20mA : **(Current loop)**

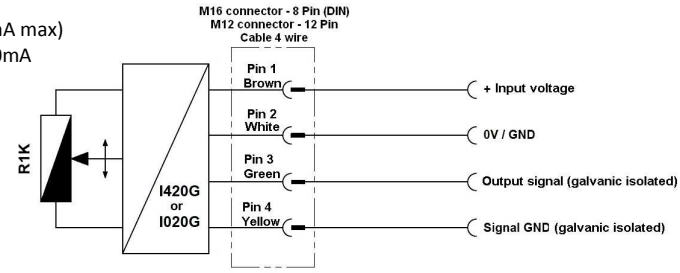
Input voltage	+15 to +27 Vdc (32mA max)
Output current	4 to 20mA
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C

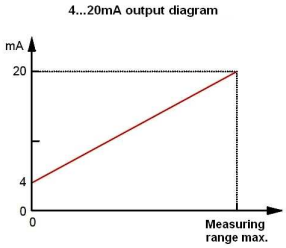




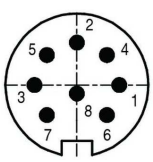
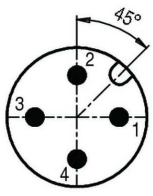
Analog version 4…20mA or 0…20mA : **(Current generator)**

Input voltage	+15 to +27 Vdc (75mA max)
Output current	4 to 20mA or 0 to 20mA
Output current	22 mA max.
Galvanic isolation	3KV
Protection	- Short circuit
	- Polarity reversal
Temperature drift	+/-100 ppm/°C



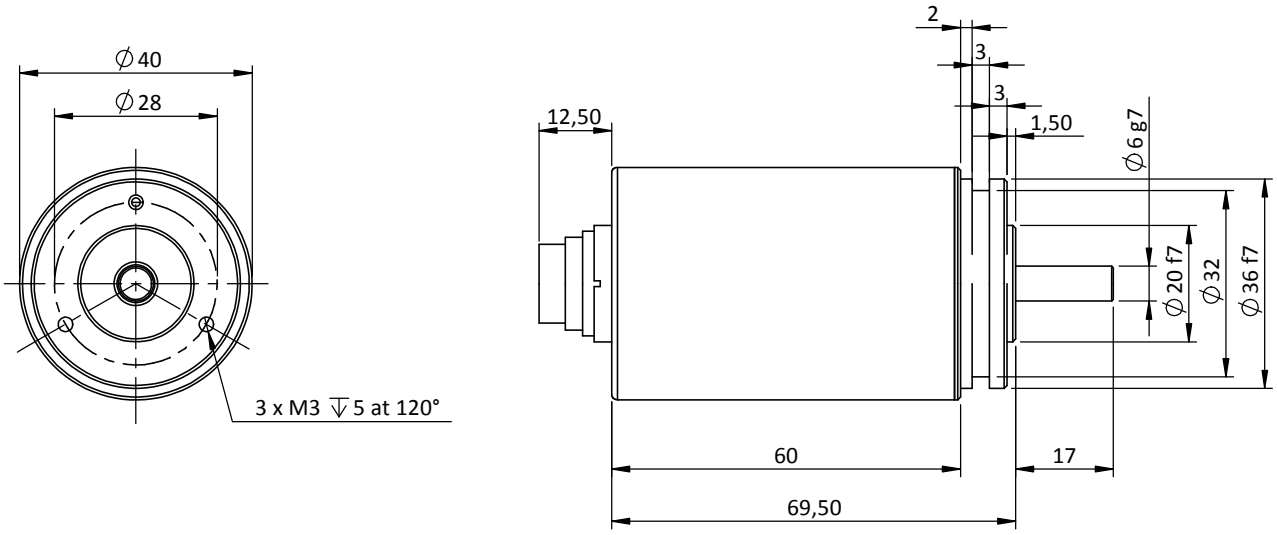


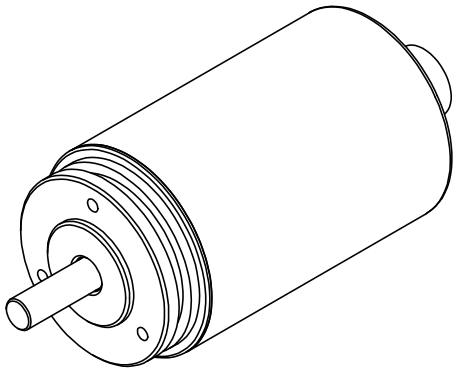
Connection :

8-pin M16 Male connector (DIN)	4-pin M12 Male connector	4-wire PVC cable	010V	I420 (current loop)	I420G or I020G (current generator)
1	1	Brown	Input voltage +	Signal +	Input voltage +
2	2	White	Input voltage GND	Signal -	Input voltage GND
3	3	Green	Signal +		Signal +
4	4	Yellow	Signal GND		Signal GND
 Sensor side view	 Sensor side view				

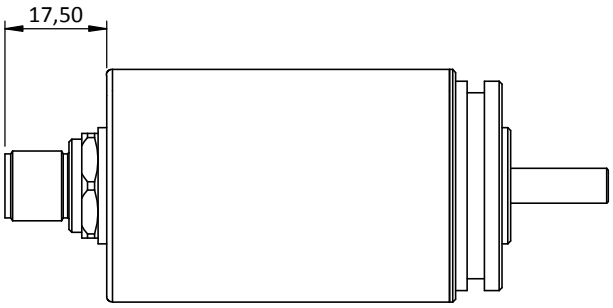
Dimensional Drawing

C connection
(Connector M16 - DIN 8 pin)

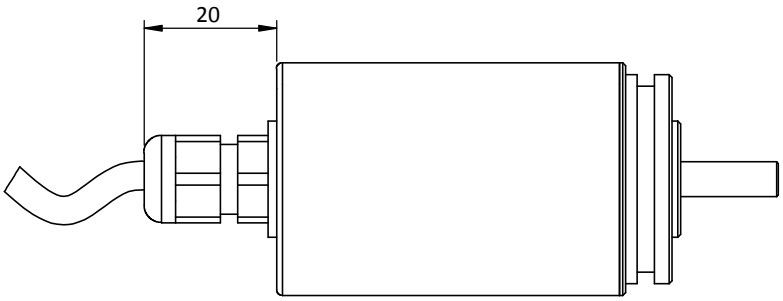




L4 connection
(connector M12 - 4 pin)



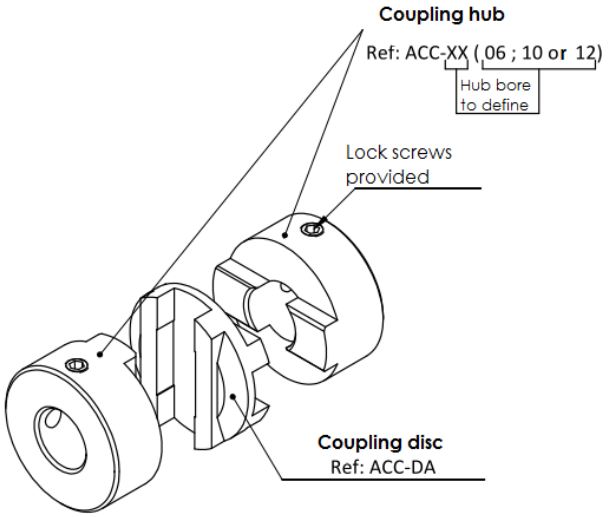
K connection
(PVC cable - 4 wires)

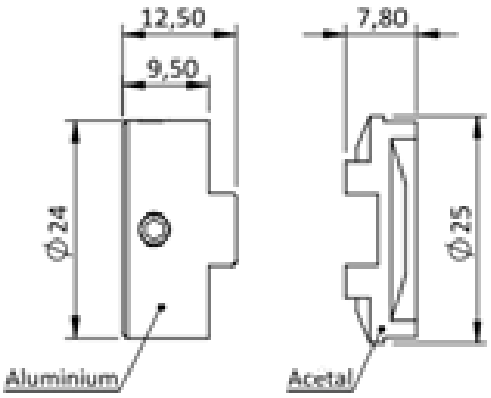


Tel : +33 (0)3 88 02 09 02 / Fax : +33 (0)3 88 02 09 03 / E-mail : info@ak-industries.com / Web : http://www.ak-industries.com

Accessories

Oldham coupling





Reference code to order a set

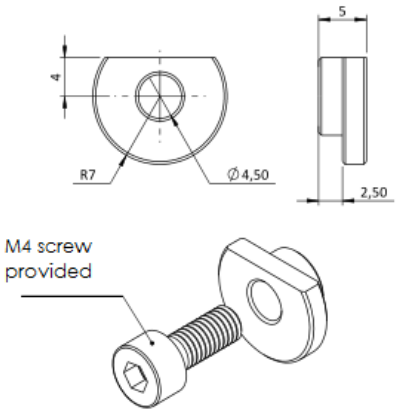
ACC-XX/XX (06/06 ; 06/10 ; 06/12 ; 10/10 ; 10/12 ; 12/12)

Hub bore to define

Cylindrical eccentric (to mount angular sensors and optical encoders)

Provided with a set of 4 eccentrics + 4 screws

Ref : EXC-001



Ref : EXC-002